
RECORD OF DECISION

East Side Access Project

prepared by

U.S. Department of Transportation (US DOT)
Federal Transit Administration (FTA)

and

Metropolitan Transportation Authority (MTA)

in cooperation with

Long Island Rail Road (LIRR)

Decision

The FTA, pursuant to 23 Code of Federal Regulations (CFR) Section 771.127 and by this environmental Record of Decision (ROD), finds that the requirements of the National Environmental Policy Act of 1969 (NEPA) have been satisfied for the East Side Access Project ("Project"). The Project is Option 2 of the Preferred Alternative that was evaluated in the East Side Access Final Environmental Impact Statement (FEIS) issued by FTA on March 6, 2001.

Background

The Project involves construction of new tunnels in Queens and Manhattan that will bring LIRR trains to the East Side of Manhattan into a new terminal beneath Grand Central Terminal. The new tunnels will be built to connect to the lower level of the existing 63rd Street Tunnel, which passes under the East River. In all, approximately seven miles of new tunnels and more than 50,000 linear feet of track will be constructed.

In Queens, the lower level of the existing 63rd Street Tunnel will be extended east beyond Northern Boulevard, where the two tracks will fan out into five tunnel tracks. In Sunnyside Yard, Queens, three tracks will rise to the surface and pass through Harold Interlocking, a busy section of track containing numerous switches, through which all Penn Station-bound trains must pass. The three new tracks will connect to the LIRR Main Line. The fourth and fifth tracks will connect to a new loop track leading to a new storage yard to be located in Yard A and a new LIRR maintenance facility to be located in Arch Street Yard. Existing freight operations by the New York & Atlantic Railway (NYAR) will be discontinued at Yard A. The Project includes the establishment of a new NYAR freight storage yard at an existing but unused yard at Blissville and a new maintenance facility at Fresh Pond Yard, which are both in Queens.

At the existing 63rd Street Tunnel's westerly terminus in Manhattan, the Project's new connecting tunnels will head west under the Lexington Avenue subway and then turn south under Park Avenue beneath Metro-North Railroad's Park Avenue tunnels. The tunnels will proceed south under Park Avenue, passing under the 60th Street tunnel of New York City Transit's N and R subway lines. As the tunnels approach Grand Central Terminal, they will fan out to provide new tracks and platforms below Grand Central Terminal's lower-level tracks (as described in the FEIS as Option 2 of the Preferred Alternative). Each platform will have stairs and escalators rising to mezzanine-level cross-passageways above and perpendicular to the platforms. From these passageways, stairs and escalators will rise to a large new concourse for the LIRR in the area currently occupied by Metro-North's Madison Yard.

As part of the Project, rail car storage facilities for Metro-North will be constructed at the currently underutilized Metro-North Highbridge Yard in the Bronx. Highbridge Yard is currently used for the temporary storage of track equipment and railroad ties and for mobilization of work trains. The Project also includes a new rail station (Sunnyside Station) under Queens Boulevard in the Sunnyside area of Long Island City, Queens. The new station will include passenger platforms adjacent to the LIRR tracks to Hunterspoint Avenue and East River Tunnel Lines 1 and 4. It will provide service to Penn Station.

The full ESA service plan requires 220 new electric vehicles be added to the LIRR's fleet by 2020. It is anticipated that 180 of the 220 vehicles will be needed for East Side Access by 2011 and an additional 40 vehicles will be needed by 2020. A portion of the funds originally identified for the purchase of rolling stock in the FEIS have been reallocated within the \$4.35 billion budget for construction, engineering and management. The 40 vehicles that are expected to be needed by 2020 will be purchased as part of the MTA/LIRR's ongoing fleet procurements and are not part of the Project. The rolling stock needs of the Project will require an incremental expansion in the amount of storage space. In particular, without the Project, the LIRR plans to expand four existing storage yard facilities in Port Washington, Babylon, Ronkonkoma, and Long Beach and to construct a new yard on the Port Jefferson Branch. With the Project, there will be a need for additional electric rail storage space for the 220 new vehicles for nighttime storage and related servicing activities—overnight cleaning, ordinary servicing (toilets, etc.), and visual inspection. This will require additional storage tracks to be developed on Long Island for the Port Jefferson, the Babylon/Central, and the Main Line/Ronkonkoma Branches.

Because the increased need for storage yards is one of the foreseeable environmental impacts of the Project, the FEIS includes a review of likely potential impacts from yard development. Although no sites have been selected, the DEIS initially considered seven sites in Nassau and Suffolk Counties. As explained in the FEIS, these sites are only included to illustrate the types of impacts that could occur with development of new yard facilities on Long Island.

Planning for the storage yards is still at a very early stage. As more information is known, the process of identifying potentially appropriate sites for the new yards and selecting preferred alternatives for those sites will be conducted by the LIRR. As the planning of this additional storage progresses and the expansion or addition of storage yards and location of the yards are identified, each potential site will be subject to an environmental review under NEPA, tiering from the East Side Access FEIS. Public outreach and any meetings regarding any yard development and decision-making processes will be planned.

Alternatives Considered

The project alternatives for the East Side Access Project were identified as part of the Major Investment Study¹ (MIS) and a comprehensive planning process that involved several years of discussions, outreach, scoping meetings, and the evaluation of environmental effects geared toward developing scenarios that would improve transit access to the east side of midtown Manhattan and increase the capacity of the LIRR system. Twenty-three alternatives were initially evaluated for constructability, operational feasibility, and ability to meet the goals and objectives identified for the transportation corridor. Of these 23 alternatives, five were advanced in the MIS for more detailed evaluation aimed at identifying the most appropriate alternative(s) for consideration in the Draft Environmental Impact Statement (DEIS). These evaluations were based on a set of quantitative and qualitative criteria that included consideration of performance, cost, community effects, social equity, and environmental impact.

As a result of the analyses prepared for the MIS, the New York Metropolitan Transportation Council (NYMTC)—which is the Metropolitan Planning Organization (MPO) for the region—adopted a locally preferred alternative on June 25, 1998 (Resolution No. 94A). Conceptual engineering was then undertaken for the locally preferred alternative, i.e., the Preferred Alternative evaluated in the DEIS that will provide LIRR service to Grand Central Terminal via the lower level of the 63rd Street Tunnel. As part of the engineering effort, two engineering options were developed for the Preferred Alternative and these were evaluated in the FEIS.

As a result of engineering considerations and input received from the public prior to and during the DEIS comment period, Engineering Option 2 for the Manhattan alignment was selected as the Preferred Alternative in the FEIS. The FEIS has been prepared in accordance with FTA rules, regulations, and guidance for implementing NEPA, the Transportation Efficiency Act for the 21st Century (TEA-21) and Title 49 USC Chapter 53.

The FEIS contains an assessment of three alternatives—No Action, Transportation Systems Management (TSM), and Preferred Alternative—for providing transit service in the Long Island Transportation Corridor. In addition, the FEIS includes a discussion of the alternatives analysis originally included in the MIS. This description is provided in Chapter 2 of the FEIS, with additional information provided in Appendix A of the FEIS.

No Action Alternative. The No Action Alternative serves as a baseline for the environmental impact evaluation of the other alternatives. It consists of improvements that have been identified in the MTA's 2000-2004 Capital Program and the LIRR's long-range plans, as well as projects sponsored by other transportation agencies that have received a similar level of consideration and will be in place by the FEIS analysis years. The No Action Alternative includes an increase in service to Penn Station from the current 37 trains to 42 trains during the peak hour. It also assumes that new dual mode service will be in place, providing a one-seat ride to Manhattan from diesel territory.

TSM Alternative. The TSM Alternative consists of a number of improvements, not currently planned for construction or operation, to maximize the use of the existing transportation system without major capital expenditures. It includes maximizing LIRR platform lengths to accommodate longer trains, increasing LIRR service to the Hunterspoint and Long Island City stations, increasing ferry service between Long Island City and Manhattan, and extending the existing westbound morning contra-flow lane on the Long Island Expressway between the Queens-Midtown Tunnel toll plaza and Greenpoint Avenue in Queens.

Preferred Alternative. The Preferred Alternative will create new LIRR service to Grand Central Terminal, increasing peak hour service to Manhattan by approximately 45 percent over No Action conditions. During the peak hour, 24 trains will operate to Grand Central Terminal and service to Penn Station will remain at 37, the number of trains currently operating to Manhattan's west side.

Two engineering options were considered in the FEIS for the Manhattan alignment, with different terminals at Grand Central Terminal. Engineering Option 1, which reflects the refinement of the project alignment in the MIS, would bring trains to new platforms on the west side of the existing lower level of the terminal. A new passenger concourse would be created within the existing lower level of Grand Central Terminal. Engineering Option 2 would bring trains to a new level beneath the existing lower level at Grand Central Terminal, and would create a new passenger concourse on the west side of the existing lower level of Grand Central Terminal. The two engineering options for the Manhattan alignment were developed to reduce the construction-related impacts on nearby tunnel structures and buildings along Park Avenue that were associated with the design presented in the MIS. Option 2 has been selected as the preferred engineering option for East Side Access because it has substantial advantages in terms of cost, constructability, and operations, and significantly fewer impacts on Metro-North and risks during construction. The cost of Option 2 is up to \$400 million less than for Option 1. Option 2 does not require underpinning of structures or buildings along Park Avenue, and significantly reduces the adverse effects to Metro-North operations into Grand Central Terminal that would occur under Option 1. Under Option 1, adverse effects to Metro North operations would include, underpinning right-of-way on Park Avenue and track outages during construction. FTA would find Option 2 of the Preferred Alternative to be environmentally preferable as it minimizes operational and construction-related ground-borne noise and vibrations effects, conflicts with existing utilities, and impacts to Manhattan neighborhoods and traffic during construction. Details of the physical elements of the Preferred Alternative with Option 2 for its Manhattan alignment are described above.

Basis for Decision

The basis for decision includes FTA's review of the purpose and need for the Project, its goals and objectives, the ability of each alternative to meet the goals and objectives, cost considerations, and environmental factors.

Today, the LIRR and other transportation providers in the Long Island Transportation Corridor, including the regional highway network, operate at or near capacity at the busiest times of day. The congestion leads to increase commuting times, greater difficulty getting to work, and deterioration in air quality—compromising the growth of both New York City's job base and Long Island's residential base. Substantial growth in population and employment is projected to occur over the next 20 years and increased capacity to Manhattan must be provided in order to meet that growth.

Goals and Objectives. The Preferred Alternative was selected because of its ability to meet the following goals and objectives:

1. **Improve Service and Reduce Travel Time.** The Preferred Alternative will improve service frequencies throughout the LIRR system and reduce travel time for customers whose destination is the east side of Manhattan by up to 30 minutes per day.

2. **Relieve LIRR Train Congestion at Penn Station New York.** The Preferred Alternative will reduce the number of LIRR trains at Penn Station to 37 in the peak hour as compared to 42 under the No Action scenario, allowing for growth of other rail operators including Metro-North Railroad.
3. **Increase Mobility by Serving New Markets and Creating New Market Connections Within the Region.** The Preferred Alternative will provide a one-seat-ride to east midtown Manhattan for LIRR customers—more than half of whom work nearer to Grand Central Terminal than Penn Station.
4. **Attract New Riders to Public Transportation by Increasing Mass Transportation Capacity.** The Preferred Alternative will attract 35,500 additional daily riders, or 10 million annual trips, to the commuter rail network by 2020. The ridership impacts of the TSM Alternative are significantly smaller—only a net increase of 4,200 daily commuters on commuter rail.
5. **Relieve Serious Overcrowding on NYCT's Queens Boulevard and Flushing Lines.** The Preferred Alternative will reduce demand and crowding on several subway lines. By 2010, 500 riders will be diverted from the overcrowded northbound E/D/F/Q and 1,185 from the Manhattan-bound No 7, Flushing Line during the AM peak. Congestion reduction benefits on other lines and station facilities will occur as well including approximately 6,000 fewer riders on the northbound A/C/E lines (200 in the southbound direction) and 700 fewer riders on the southbound 1/2/3/9 line.
6. **Reduce Congestion on Area Highway Corridors.** The Preferred Alternative will reduce total annual vehicle miles traveled (VMT) by about 105.5 million compared to the No Action condition. By comparison, the savings for the Preferred Alternative compared to the TSM Alternative is estimated at 71.8 million miles.
7. **Promote and Reinforce Economic Development and the Quality of Life.** The Preferred Alternative will eliminate the existing disconnect between the location of jobs and locations of terminals in Manhattan, and provide relief from the currently overcrowded conditions on many LIRR peak hour trains. It will support the projections for increases in employment in the Manhattan Central Business District (CBD), on the east side of Manhattan, and within the Long Island City CBD. The travel time savings for LIRR commuters will have a clear positive impact on productivity in the corridor.
8. **Help the Region Meet its Clean Air² Goals.** The savings in VMT will contribute to lower mobile source emissions and positively affect SIP objectives related to cleaner air quality in the New York metropolitan region. Compared to the No Action condition, the Preferred Alternative will contribute to an annual reduction of 117 tons of nitrogen oxides, 564 tons of carbon monoxide, 166 tons of volatile organic compounds (VOC)s, and 62 tons of PM₁₀. Compared to the TSM Alternative, the Preferred Alternative will contribute to an annual reduction of 160 tons of nitrogen oxides, 421 tons of carbon monoxide, 121 tons of VOCs, and 45 tons of PM₁₀.
9. **Preserve Operational Capabilities for Existing Operators.** As described above, the Preferred Alternative will create capacity in Penn Station and, at the same time, will not result in significant adverse effects to Metro-North service at Grand Central Terminal. The work that will be completed at Harold Interlocking will significantly improve

conditions by reducing track crossings and adding capacity and flexibility for LIRR and Amtrak service.

Cost-Effectiveness. The Preferred Alternative will benefit a large base of existing customers, as well as attract new transit riders. Overall, East Side Access will generate 35,500 more daily and 10 million more annual trips than the No Action Alternative. By the year 2020, East Side Access will reduce overcrowding, cut travel time and provide direct access for over 221,000 daily trips by railroad customers, who will generate 62.3 million trips annually. The total of 62.3 million annual trips by benefiting passengers includes: 45.5 million trips by passengers who will use the new MTA LIRR Grand Central Terminal; 1.5 million trips to the proposed Sunnyside Station; and 15.3 million trips by Penn Station-bound MTA LIRR passengers who will no longer have to travel in overcrowded trains during the morning and evening peak hour. For East Side Access, the incremental cost per benefiting rider is only \$5.54 compared to the No Action Alternative.

State and Local Funding Commitments. The financial plan for the Preferred Alternative assumes that 50 percent of the capital costs—approximately \$2.2 billion—will be funded from non-Section 5309 New Starts funds. This high level of local overmatch to federal funds reflects the region's commitment to implementing new LIRR service to the east side of Manhattan. Through July 2000, MTA had committed \$148.1 million for the Preferred Alternative. The MTA 2000-2004 Capital Program allocates \$1.5 billion for the East Side Access Project and assumes that federal participation will total 50 percent over the life of the project.

To date, FTA has awarded a total of \$45.7 million for planning and preliminary engineering through the 49 U.S.C. Section 5309 New Starts program out of the \$353 million earmarked by Congress for East Side Access.

For the year 2012, the operating and maintenance cost for the Preferred Alternative is estimated at \$100.5 million dollars in 1999 dollars, representing less than two percent of MTA's annual operating and maintenance costs.

Adverse Impacts. Mitigation measures (summarized in Attachment A) have been adopted to minimize adverse environmental effects of the Project. The Project will result in certain adverse impacts either during operation or construction that remain unmitigated or partially unmitigated. It should be noted that the MTA has initiated the DEIS process for a full length Second Avenue Subway. Specifically, the Project will result in increased crowding on the already crowded Lexington Avenue subway at the Grand Central/42nd Street station. This impact will be only partially mitigated. In addition, noise levels above FTA impact criteria along three segments of the LIRR system—between Woodside and Hicksville, Jamaica and Valley Stream, and Huntington and Port Jefferson—will occur as a result of future increases to diesel service. This impact will not be mitigated. Finally, construction activities for the Preferred Alternative will also result in temporary disruptions to surrounding uses that cannot be fully mitigated.

In summary, FTA's basis for decision on the East Side Access Project included consideration of the foreseeable adverse impacts in light of the local and regional environmental and transportation benefits it will provide. Cost and funding considerations were also taken into account.

Mitigation Measures

MTA/LIRR East Side Access will design and build into the Project all mitigation measures described in the FEIS for the Preferred Alternative. These measures include the stipulations in the Programmatic Agreement provided in Appendix B of the FEIS, which was developed to comply with Section 106 of the National Historic Preservation Act. FTA will require in any future funding agreement on the Project and as a condition of any future grant or Letter of No Prejudice for the Project, that all committed mitigation be implemented in accordance with the FEIS. The FTA will require that MTA/LIRR East Side Access periodically submit written reports on its progress in implementing the mitigation commitments. FTA will monitor this progress through quarterly review of the final engineering and design, the land acquisition for the Project, and the construction of the Project. The measures to mitigate unavoidable adverse environmental impacts and minimize harm are fully described in the FEIS and are summarized in Attachment A in this Record of Decision.

Public and Agency Coordination

The East Side Access Project has had an extensive public and agency outreach program. In addition to the public outreach during the MIS process and the formal public hearing and comments received on the DEIS during the NEPA process, other outreach elements have included the following:

- Coordination with affected community boards (29 presentations);
- Public information meetings advertised via local newspapers and seat drops on Metro-North Railroad and Long Island Rail Road (18);
- Small group meetings, tours, and presentations to interested organizations (43);
- Regular meetings of a 55-member Technical Advisory Committee (17);
- Regular meetings of a 200-person Citizens Advisory Committee (16);
- Targeted outreach to residents and businesses in the immediate project area in Manhattan and Queens, which includes a 5,000-person mailing list;
- Hundreds of ongoing working meetings with affected operating agencies such as Amtrak, Metro-North and New York City Transit; and
- Meetings with environmental and regulatory agencies on an as-needed basis.

The program has been aimed at all major planning boards, government organizations, elected officials, and transportation and environmental groups throughout New York City; Long Island; Westchester, Putnam, and Dutchess Counties; and New Jersey.

The MIS was issued in April 1998. Publication of the DEIS was announced in the Federal Register on May 26, 2000. A public hearing to receive oral and written testimony on the DEIS was held on June 15, 2000. Comments were received throughout the public comment period, from May 26, 2000 to July 12, 2000. Additional comments were accepted through December 1, 2000. Comments were received from the general public, neighborhood associations, businesses, civic organizations, elected officials, and governmental agencies. These comments are addressed in Chapter 28 of the FEIS.

Comments Received on the FEIS

Six comment letters on the FEIS were received responses were provide. The four letters offering substantive comments came from the Army Corps of Engineers (ACOE), Permanent Citizen's Advisory Committee to the MTA (PCAC), Environmental Protection Agency (EPA), and the Committee for Better Transit (CBT). The other two comment letters were from The New York State Assembly and Dutchess County. The New York State Assembly correspondence simply acknowledged receipt of the FEIS documents. The Assembly was thanked for its acknowledgement. Dutchess County inquired as to how long the FEIS should be available for public review. Dutchess County was thanked for its acknowledgement and advised to keep the FEIS available to the public until June 1, 2001.

Army Corps of Engineers New York

The Army Corps of Engineers New York District noted that the project will need to obtain a jurisdictional determination on the proposed Long Island yard sites prior to their development if filling of, or disturbance to, wetlands is anticipated. The MTA/LIRR responded by stating that additional yard development for increased train storage capacity on Long Island is in the preliminary planning stages and candidate sites have yet to be selected. When planning for the yards is further along, the development will be subject to a tiered EIS prepared in accordance with NEPA. At that time, MTA/LIRR will consult with the ACOE for a jurisdictional determination regarding the selected yard sites and if there is any potential impacts to wetlands.

Permanent Citizen's Advisory Committee

The PCAC letter to the MTA reiterated their support for the project but also expressed disagreement over certain FEIS statements and conclusions including: how the effects of the project on land use and traffic congestion are characterized; how mitigation for the impacts to the Lexington Avenue subway is addressed; and the use of street furniture removal as a mitigation measure for the pedestrian impacts in the GCT area.

With regard to the characterization of land use effects—while East Side Access will serve more than half of LIRR's total customers, this level of ridership must be viewed in relation to the size and density of east midtown Manhattan when considering the influence on future land use. By 2010, east midtown Manhattan will be built-out to the maximum zoning allowances for high-density commercial development, independent of the East Side Access project. Thus, the land use analysis concludes that East Side Access will support land use patterns in midtown by bringing commuters directly to their final commuting destinations. To a large extent, the LIRR commuters would be in the Grand Central Terminal area irrespective of East Side Access; the project simply provides a faster more direct route. Similarly at Penn Station, given the number of commuters who travel through Penn Station (including future commuters associated with New Jersey Transit, Amtrak, and MTA operating agency projects), people who work in the neighborhood, and the density of commercial development in the area, the effects of East Side Access will represent a relatively small decrease in pedestrian traffic.

With regard to the project's effects on traffic—while the number of trips diverted from auto is less than one percent of total automobile trips into Manhattan, the project will, nevertheless, attract 35,500 new daily riders and reduce background traffic levels by approximately two percent in the Grand Central Terminal study area.

With regard to the Lexington Avenue subway—the FEIS acknowledges that the implementation of the Second Avenue Subway would ~~divert~~ riders from the Lexington Avenue line, bringing operations on this line to below capacity and alleviating conditions at the Grand Central subway station (see page 9A-5 of the FEIS).

With regard to the removal of street furniture—PCAC requested that the FEIS must disclose all reasonable and feasible measures to mitigate the adverse impacts identified in the environmental analyses completed for the project. The removal of street furniture from the locations identified as adversely affected by LIRR commuters is an option that could be employed by NYCDOT in the future. The complete elimination of street vendors and furniture from the GCT area would not be required. Rather, these elements would need to be shifted to nearby locations to avoid areas of high pedestrian congestion.

Environmental Protection Agency

The EPA Region II office submitted comments during the FEIS's public availability period. The correspondence stated that the FEIS adequately addressed the following concerns: equal treatment of alternatives, the impacts the volume of LIRR passengers to Grand Central Terminal will have on the Lexington Avenue Subway, air quality impacts, Sunnyside Yard hazardous waste site, contaminated materials, and cumulative effects.

Committee for Better Transit

The CBT requested a careful evaluation of their plan for East Side Access. The CBT plan reduces construction cost from \$3.3 billion to \$865 million and cuts implementation by 50 percent. The CBT plan calls for bringing LIRR trains to the exiting upper level of Grand Central Terminal, easing passenger access to the street by using ramps instead of long escalators. Use of the upper level allows lower level trackage to be extended south to Penn Station in the longer term. CBT felt that a careful evaluation of the CBT plan is not contained in the project's FEIS. CBT requests that a targeted analysis of four key issues be completed before FTA issues a Record of Decision.

1. Capacity analysis using computer simulation to compare 5-track loop vs. 8-track stub
2. Instrumented tests to determine upper level loop speed
3. Independent verification of cost and implementation time of CBT's "streamlined" alternative
4. Benefit/cost analysis of midday car storage at Sunnyside Yard.

CBT submitted similar comments on the Draft Environmental Impact Statement (DEIS). Responses to those comments are provided in Chapter 28 of the FEIS ("Comments and Responses") – see the responses to Comments 23 through 28 on pages 28-12 through 28-16. As noted in the FEIS (see the response to Comment 23), the CBT's plan was evaluated along with a number of other alternatives in the MIS phase of the East Side Access Project and again during the development of the DEIS. That evaluation concluded that the CBT plan (referred to in the comments and responses as the "Apple Corridor plan"). The Apple Corridor plan is not capable of sustaining as high a level of service as East Side Access, and cannot meet the service requirements of its own ridership forecast. It would also remove five active Metro-North Railroad (MNR) tracks and three platforms from MNR service, restricting MNR's operations while cutting off MNR access to the upper-level loop track. This is not compatible with Metro-North Railroad's projected future level of services.

Specific responses to the four points made in the CBT correspondence are as follows:

1. *Capacity analysis using computer simulation to compare 5-track loop vs. 8-track stub.* Extensive simulations were done during both the MIS and DEIS phases of the project. All showed that 10 tracks were needed to support a loop track configuration, while 8 tracks would be sufficient with a grade-separated, stub-ended terminal. As noted in the response to Comment 24, the CBT plan proposes to remove five active Metro-North tracks and three platforms from MNR service, restricting MNR's operations and cutting off MNR access to the upper-level loop track.
2. *Instrumented tests to determine upper level loop speed.* Use of the upper level loop track assumes that LIRR trains would displace MNR trains in the upper level, as well as on the viaduct and tracks leading to the upper level. As noted above, this concept is not compatible with future MNR levels of service. The analysis of current and future Metro-North service shows that all upper level capacity, including not only the upper level of Grand Central, but also the viaduct and tracks leading to the upper level, is needed for future MNR growth.
3. *Independent verification of cost and implementation time of CBT's "streamlined" alternative.* As noted above, CBT's proposal omits critical pieces of infrastructure and underestimates the costs of other elements to achieve its estimate.
4. *Benefit/cost analysis of midday car storage at Sunnyside Yard.* Space for midday storage and servicing of East Side Access train cars must be provided at some location. Without midday storage, there can be no East Side Access service at all. If no new yard is created at Sunnyside, then additional MNR tracks at Grand Central must be taken over for East Side Access. This issue is addressed in response to Comment 26 in the FEIS, which notes that the LIRR Main Line to Jamaica consists of four tracks, which are currently operated with three tracks in the peak direction and one track in the reverse peak direction. With East Side Access, the peak service at Grand Central Terminal and Penn Station would utilize the entire capacity of the three peak-direction tracks, and the single reverse peak track would be able to sustain only about one-third as many trains as the three tracks. The balance of two-thirds of the trains must be provided with midday storage somewhere west of Harold Interlocking. Given that the LIRR's West Side Yard at Penn Station is already fully utilized, the requirement for East Side Access midday storage is absolute, barring an increase in the number of Main Line tracks, which has never been contemplated. The costs of such a proposal are inestimable. For these reasons, East Side Access must construct a midday storage yard in Queens, as well as dedicated leads from the 63rd Street Tunnel to that yard (requiring more than two tracks connecting the tunnel to the LIRR mainline).

Publication of the FEIS was announced in the Federal Register on March 16, 2001. A 30-day review period ended on April 16, 2001. Four letters relating to the FEIS were received. Two of the letters contained substantive comments and were responded to.

Determinations and Findings

Environmental Protection (49 USC Sections 5301(e) and 5324(b))

The environmental record for the MTA/LIRR East Side Access Project includes the MIS for the Long Island Transportation Corridor issued in April 1998; the East Side Access DEIS issued in May 2000; and the FEIS issued in March 2001 and their related documents. Cumulatively, these

documents constitute the detailed statement required by both NEPA and the Federal Transit Law, 49 USC 5324(b), regarding the environmental impacts of the proposed project, any adverse environmental effects that cannot be avoided should the proposed project be implemented, alternatives to the proposed project, and any irreversible and irretrievable impact on the environment which may be involved in the proposed project should it be implemented.

On the basis of the environmental record analyzed for the project, the evaluations of social, economic, and environmental impacts as presented in the FEIS; the summary of committed mitigation for East Side Access (see Mitigation Measures section below); and the written and oral comments offered by the public and other agencies, the FTA has determined, in accordance with 49 USC Section 5324(b), that:

- (a) An adequate opportunity was afforded for the presentation of views by all parties with a significant economic, social, or environmental interest in the Project;
- (b) The preservation and enhancement of the environment and the interest of the community in which the proposed Project is located was considered; and
- (c) No feasible and prudent alternative to the adverse environmental effects of East Side Access exists and all reasonable steps have been taken to minimize the effects.

Conformity with Air Quality Plans

The federal Clean Air Act (CAA), as amended, requires projects to conform to the purposes of the State Implementation Plan (SIP) to receive federal financial assistance. Those purposes are to eliminate or reduce the severity and number of violations of the National Ambient Air Quality Standards (NAAQS) and achieve expeditious attainment of such standards. The US Environmental Protection Agency's (EPA's) final transportation conformity rule, dated August 15, 1997, requires metropolitan planning organizations (MPOs), the Federal Highway Administration (FHWA), and FTA to make conformity determinations on metropolitan long-range transportation plans (LRTPs), transportation improvement programs (TIPs), and transportation projects with respect to the SIP before they are adopted or approved. The LRTP is the official intermodal metropolitan transportation plan for an area and generally has a 20-year planning horizon. The TIP is a staged, multiyear, intermodal program of transportation projects that is consistent with the LRTP.

NYMTC, the MPO for the New York Metropolitan Region, approved the conformity determination for the LRTP, known as the Regional Transportation Plan (RTP) and entitled "Mobility for the Millennium," and the 2000-2004 TIP on September 23, 1999. FHWA and FTA approved the TIP/SIP conformity determination and EPA concurred with the findings. The MTA/LIRR East Side Access Project is included in the TIP and the RTP.

Air quality analyses indicate that East Side Access will conform to the regional air quality requirements, as defined within the framework of the CAA, and its amendments. Overall carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO_x), and particulate matter (PM₁₀) emissions burdens in the area will decrease with implementation of East Side Access. Furthermore, the results of the localized CO concentration analyses at specific intersections demonstrate that no new violations of the NAAQS standards will occur, nor will existing violations worsen, under the Preferred Alternative. Therefore, FTA finds that the Project conforms to the air quality plans for the region.

Floodplain Impact

Construction that will occur within the 100-year floodplain (Highbridge Yard, Blissville Yard, and portions of Sunnyside Yard, Yard A, and Arch Street Yard) is not a significant encroachment and will not result in any increases in flood levels in surrounding areas. Therefore, FTA finds that East Side Access is in accordance with the requirements of Executive Order 11988.

Wetland Impact

The Project will not result in any significant adverse impacts to wetlands. The small wetland areas at Yard A/Arch Street Yard that are within the project area do not serve significant wetland functions, and work there is permitted under the US Army Corps of Engineers nationwide permit. No other wetlands are within project areas, and those that are proximate to project areas will not be adversely affected. Therefore, FTA finds that East Side Access is in accordance with the requirements of Executive Order 11990.

Historic and Archaeological Resources (Section 106)

Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended, requires federal agencies to identify and assess the effects of their actions on any properties listed on or determined eligible for listing on the National Register of Historic Places (NR), afford the federal Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings; and consult with interested parties to find acceptable ways to avoid or mitigate adverse impacts. To comply with Section 106 regulations, the FTA has consulted with the New York State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation to determine the Project's potential adverse effects and appropriate mitigation measures.

The SHPO has determined that the East Side Access Project will have no significant adverse effects, subject to the conditions listed in the Programmatic Agreement included in Appendix B to the FEIS, on historic or archaeological resources. This includes several areas identified as having the potential to contain archaeological resources and the historic properties located in the Project's area of potential effect. Within the area of potential effect there is one historic property, Grand Central Terminal, that is a National Historic Landmark, and 17 historic resources in Manhattan (including Grand Central Terminal) and three historic resources in Queens that are either listed on the State and National Registers of Historic Places or eligible for such listing.

The Programmatic Agreement was developed pursuant to the regulations implementing Section 106 of the National Historic Preservation Act of 1966. The Programmatic Agreement among the FTA, New York SHPO, and MTA was signed in January 2001 and a copy is included in the FEIS in Appendix B. The Programmatic Agreement outlines the approach that will be taken in assessing and mitigating the effects on historic structures and potential archaeological sites from the design and construction of the East Side Access Project.

Environmental Justice (Executive Order 12898)

The Project was evaluated with respect to its impacts on minority and low-income communities. This analysis determined that anticipated human and environmental effects of the Project will not be disproportionately borne by minority or low-income populations. Therefore, FTA finds that the Project is in accordance with requirements of Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations."

Section 4(f) Determination

Section 4(f) of the Department of Transportation Act of 1966 (49 USC 303) affords special protection to parks, recreation areas, wildlife refuges, and historic sites. The Project's area of potential effect includes one historic property, Grand Central Terminal, that is a National Historic Landmark and 17 historic resources (including Grand Central Terminal) in Manhattan and three historic resources in Queens that are either listed on the State and National Registers of Historic Places or eligible for such listing. In addition, several Project areas may have buried archaeological resources. The Project will implement the measures outlined in the Programmatic Agreement included in Appendix B to the FEIS to minimize harm to these and any other sites that may be eligible for listing on the National Register of Historic Places. It is recognized by the U.S. Department of the Interior (DOI) that no Section 4(f) issues were identified in the DEIS and FEIS.

Re-Evaluation

Pursuant to 23 CFR Section 771.129, if it becomes necessary to make significant changes to the scope of the Project, or if major steps to advance the Project have not been taken within three years, a written evaluation of the FEIS for East Side Access will be required before further approvals may be granted. Additionally, as part of any procurement contracts for the Project, MTA/LIRR East Side Access must commit to carry out the mitigation measures described in the FEIS and herein.



Letitia Thompson
Regional Administrator, Region II
Federal Transit Administration

Date: May 21, 2001

East Side Access Project

ATTACHMENT A MITIGATION MEASURES

Committed mitigation measures that are now incorporated into the Project are described in detail in the FEIS. This attachment summarizes the incorporated mitigation. The MTA-LIRR is required to make sure all mitigation measures committed to in the FEIS and summarized here are implemented.

Property Acquisitions and Relocation

To construct the new ventilation facility and entrances to the new concourse at Grand Central Terminal in Manhattan, the Project will permanently displace approximately 10 businesses. The Project will also require acquisition of private property and permanent easements at other locations in Manhattan for the new entrances, ventilation facilities, and below-ground tunnels, as well as acquisition of at least a portion of one privately owned property in Queens for the Project's loop track, a small City-owned property in Queens for its ventilation structure, and a small City-owned property in the Bronx for development of Highbridge Yard. Temporary construction easements will also be required in Manhattan and Queens. Displacements and relocations will be subject to 49 CFR Part 24, Uniform Relocation Assistance and Real Property Acquisition Regulations for Federal and Federally Assisted Programs (the Uniform Act), which provides entitlements for property owners and qualified businesses that are displaced. MTA's Real Estate Department will administer the relocation program in accordance with federal rules and regulations.

Once the Project's final design is under way, property identification plans will be developed to identify every parcel affected by the Project and to define the need for property acquisitions and/or easements. From property identification plans, preliminary title reports will be obtained to ascertain the owners of record and legal descriptions of the parcels. The parcels will then be certified as needed for the Project and the acquisition process initiated.

The MTA Real Estate Department is responsible for acquiring right-of-way and other real estate interests necessary to complete the Project. The right-of-way coordinator from the East Side Access Project team will assist the Real Estate Department. The acquisition process will consist of the following six steps: identification of required real estate once final design information is available; appraisal of required property; acquisition, either through negotiation or eminent domain; settlement or litigation of any claims for additional compensation or property damage; relocation of occupants if necessary; and property management, including demolition of improvements. MTA will adhere to the federal regulations of the Uniform Act, which covers the appraisal and acquisition of real property, relocation services, moving payments, replacement housing payments, and other allowable expense payments.

Historic and Archaeological Resources

A Programmatic Agreement was executed by the FTA, the New York State Historic Preservation Officer (SHPO), and the MTA, and a copy of the Programmatic Agreement is included in Appendix B of the FEIS. This agreement specifies the measures that will be taken by the FTA

and the MTA to avoid, minimize, or mitigate the potential adverse impacts of the Project on historic and archaeological resources. There will be no adverse effects on historic properties or archaeological resources provided that the measures detailed in the Programmatic Agreement are implemented.

For archaeological resources, the measures detailed in the Programmatic Agreement include development and implementation of a soil boring program, and field-testing where the potential for archaeological resources is confirmed to exist by soil borings or further evaluation. For any sites that are determined eligible for the National Register using those steps, where MTA also determines in consultation with SHPO that avoidance is not practicable, a data recovery plan will be developed and implemented. All archaeological field analysis and data recovery required will be completed prior to construction activities in the vicinity of affected resources. If this is not practicable, MTA, in consultation with SHPO, will develop a phasing plan for the archaeological and construction activities.

For historic resources, the measures detailed in the Programmatic Agreement include development and implementation of a construction protection plan to ensure the protection of Grand Central Terminal, the Yale Club, Switch Tower Q, and the Sunnyside Yard Office, and any other historic resources listed on or determined eligible for the National Register or designated as a New York City Landmark. Any such resource within 75 feet of construction activities will be included in a construction protection plan. In addition, the Programmatic Agreement requires development of design specifications to ensure that new elements constructed as part of East Side Access within Grand Central Terminal are compatible with the terminal's significant qualities. Design specifications will also be developed in coordination with SHPO for any new Project elements within visual range of any historic resources listed on or eligible for the National Register or designated as New York City Landmarks.

Transportation

Transit. With the East Side Access Project, a number of improvements will be made to elements of the New York City Transit Lexington Avenue line subway station at 42nd Street/Grand Central Terminal. These measures are designed to mitigate congestion on stairwells, platforms, and line-haul capacity of the Lexington Avenue subway by improving circulation patterns and train throughput. The specific mitigation measures are listed below:

- Increase use of the free passage connecting NYCT fare control area 236 at the shuttle turnstile area entrance and fare control area 238 at the Lexington Avenue line western turnstile bank.
- Create a new turnstile bank just west of fare control area 238 to attract passengers from the free passageway area into the mezzanine area and relieve use of the western stair/escalator bank.
- Widen the corridor mouth into space currently occupied by the Pershing Building's basement to create a new stair P10.
- Restore stair P16.
- Enlarge fare control area 238's turnstile line farther east into the mezzanine area.
- Increases in demand for bus service in the vicinity of Grand Central Terminal will be mitigated by NYCT as demand dictates, through the adjustment of bus schedules and frequencies, as is their policy.

Pedestrian Flows. Increased pedestrian flows in Grand Central Terminal will result in a significant adverse impact at the escalator bank leading to the New York Transit Museum store on the west side of the Main Concourse. Partial mitigation for this impact could be achieved through redirection of the escalator so both elements operate in the peak direction, if warranted upon completion of the Project.

Outside the terminal, for significant impacts on sidewalks and at crosswalks due to the increase in pedestrian activity in the Grand Central Terminal area, mitigation measures identified include widening of crosswalks in some locations. In other locations, the New York City Department of Transportation (NYCDOT) may choose to limit sidewalk vendors and/or street furniture such as newspaper kiosks and flower boxes to create more sidewalk capacity. MTA will coordinate with NYCDOT after Project implementation and if NYCDOT determines that any of these measures are warranted, the MTA will work with the NYCDOT to facilitate said measures.

Traffic. Increased taxi activity on streets near Grand Central Terminal will result in significant adverse impacts at up to 12 intersections during peak hours. Mitigation for these impacts, which is the responsibility of the NYCDOT as part of their normal procedures, consists of standard traffic engineering improvements, such as signal phasing and timing modifications, more restrictive parking regulations, and by providing exclusive phases (e.g., left-turn arrows) for turning movements at some intersections to minimize conflicts with crossing pedestrians. MTA will coordinate with NYCDOT after Project implementation and if NYCDOT determines that any of these measures are warranted, then MTA will work with the NYCDOT to facilitate said measures.

Traffic increases in the vicinity of some LIRR stations on Long Island will also require mitigation via standard traffic engineering improvements such as the installation of traffic signals at unsignalized intersections, signal phasing and/or timing modifications at signalized intersections, lane re-striping, offsetting centerlines of streets where it will be necessary to gain additional capacity in one direction, and more restrictive parking regulations. Responsibility for implementation of these mitigation measures lies with the local jurisdictions affected.

Parking. Parking shortfalls at LIRR stations on Long Island, which occur in the existing condition and are predicted for both the No Action and Preferred Alternatives, will be mitigated on a station-by-station basis, through the LIRR's existing Parking Program. This program involves working with the local jurisdictions that own, operate, and maintain parking facilities at LIRR stations to identify and implement appropriate improvements. For the parking facilities affected by East Side Access, the range of parking mitigation measures could include consideration of one or more of the following on a station-by-station basis:

- Re-striping of existing surface parking lots to increase capacity, expansion of existing lots, or construction of new lots.
- Construction of parking garages atop existing surface lots or at new locations.
- Modification of train service and schedules to improve or increase service at stations with available parking or where parking could be added more easily.
- Institution of fare policy changes to attract riders to a new station by shifting one or more stations from one fare zone to another.
- Increase of existing bus service to stations to promote bus use. Free or heavily subsidized fares and combination fare tickets could also be considered.

- Implementation of new station-oriented feeder bus service or jitney service, with local riders or a local Chamber of Commerce or Business Improvement District group designing the route themselves.
- Substantial improvements to and prioritization of pick-up/drop-off facilities to increase pick-up/drop-off activity and reduce parking demand.
- Provision of preferential parking areas for carpoolers, with enforcement. Consideration could also be given to decreasing parking charges for carpoolers, although this is generally outside of LIRR jurisdiction, since the vast majority of station parking facilities are owned, operated, and maintained by local governmental bodies, and not LIRR.
- Construction of new station(s) near or between two major stations where parking demands greatly exceeds parking availability.
- Provision of bicycle racks and/or lockers to promote increased bicycle use for access to stations.

Air Quality

The standard traffic engineering measures implemented to mitigate traffic impacts at the intersections of 48th Street and Park and Third Avenues will also mitigate the air quality impact predicted for the intersection of 48th Street and Madison Avenue. MTA will work with the appropriate agencies to facilitate these mitigation measures.

Noise and Vibration

Design features will be incorporated into the Project to mitigate its potential ground-borne noise impacts along the Project route in Manhattan and Queens. Resilient rail fastenings and ties will be used in Project tunnels in Manhattan to avoid potential ground-borne noise impacts. In Queens, potential ground-borne noise impacts will be mitigated to levels that comply with FTA guidelines through the use of floating slabs, resiliently supported ties and fasteners, or ballast mats as needed at certain locations.

While certain segments of the LIRR system will experience wayside noise impacts of up to 3 dBA more than existing levels as a result of the additional train service, it is not practical to install noise barriers due to the extensive wall length that would be required. At the portions of the Port Jefferson Branch where noise impacts are predicted, the construction of sound barrier walls would cost approximately \$2.3 million per mile. The size of the existing system—with more than 700 trains a day and more than 365 miles of right-of-way—prohibits the LIRR from considering mitigation measures for impacts related to changes in the operating plan.

Contaminated Materials

During construction, the East Side Access Project will require excavation and disturbance of soil, including tunnel spoil. For materials that will not be used on-site, testing will be performed to determine appropriate disposal options.

Building on the initial sampling effort performed for the EIS, a comprehensive program to sample, analyze, delineate, and quantify contamination within each of the construction areas will be developed. Findings Reports will be prepared that document the on-site sampling and analytical efforts, and quantify and delineate the contamination found. Site-specific Construction Containment Management Plans (CCMPs) will be prepared based on the conclusions in the Findings Reports. The CCMPs will describe the requirements for handling, management, treatment, and disposal of contaminated materials encountered during construction. In the case of

groundwater contamination, containment, treatment, and discharge options will be included in the CCMP.

The approach to mitigation of soil and groundwater conditions will include the following:

- NYSDEC approvals and/or permits for activities relating to the remediation of oil or hazardous substances will be sought. In accordance with regulations governing Inactive Hazardous Waste Disposal Sites, the Project will be constructed so as not to interfere significantly with any proposed or ongoing program to remediate conditions in Sunnyside Yard. If oil contamination is discovered in connection with the Project, the requirements of the New York State Navigation Law (spill reporting and others) will be followed.
- Potentially contaminated soils will be excavated and stockpiled on polyethylene sheeting until they can be tested and if necessary, removed for off-site disposal at an appropriate facility. Depending on the quantities and locations of contaminated soils, other mitigation technologies may also be used. All soil disposal from Sunnyside Yard will be coordinated with Amtrak.
- Groundwater mitigation will include ongoing monitoring and treatment of water removed during dewatering operations, and monitoring the plume of separate-phase PCB-contaminated oil in Sunnyside Yard to assure there is no migration into the Project area. The permanent placement of low permeability barriers (e.g., slurry walls) around the Project area will also prevent contaminated groundwater from entering the Project area. NYSDEC dewatering permits (6 NYCRR §602) for the operation of wells to withdraw water will be obtained prior to construction activities, where required.

Natural Resources

Pollution source reduction techniques and prevention strategies, as recommended by the EPA Office of Pollution Prevention, will be incorporated into the design of the cleaning and maintenance facilities to be constructed in Arch Street Yard, Fresh Pond Yard, and Highbridge Yard. These facilities will use detergents, oil, and solvents, but their use will be limited to within enclosed buildings. An industrial discharge evaluation will be conducted and pre-treatment systems will be designed and specified to comply with federal Industrial Pretreatment Program regulations as administered by NYCDEP, NYSDEC requirements for new discharges, and all other applicable standards and guidelines.

At Project sites where new facilities (e.g., additional buildings or an increase in the paved area) could lead to additional runoff, storm water systems will be used to collect runoff that is generated from the affected areas. Any existing storm drainage systems will be evaluated for condition, regulatory compliance, and capacity. The systems will be rehabilitated, replaced, or supplemented with new systems for new yard development. To handle the sediment and sand expected in the storm water runoff from paved parking areas and service aisles, storm water will be collected and piped through a gross particle separator (GPS) before discharging into a storm drain trunk line feeding to a storm water oil/waste separator.

Construction Impacts

Land Use and Social Conditions. In the vicinity of Project construction areas in Manhattan and Queens, access will be maintained to adjacent land uses at all times. In areas where sidewalks or street lanes are being closed for extended periods of time, standard practices for maintaining pedestrian and vehicular access will be followed. These practices will include providing alternate routes of entry into buildings for employees, residents, and deliveries; providing appropriate

signage to direct people to these alternate entrances; establishing a traffic management plan to ensure vehicular access to affected buildings; and implementing an outreach program to share construction schedules, potential impacts, and mitigation measures with local retailers, businesses, and residents.

Historic and Archaeological Resources. The Programmatic Agreement executed for the East Side Access Project sets forth requirements for mitigation measures to protect historic and archaeological resources during construction. Most importantly, these include development and implementation of construction protection plans for all resources that are eligible for or listed on the National Register or designated as New York City Landmarks that are in the vicinity of Project construction activities.

Transportation. Construction between 44th and 55th Streets in Manhattan will require closing sidewalks and vehicular traffic lanes and could cause changes to vehicular traffic patterns in the vicinity of traffic lane closures. To minimize any potential impacts of construction activities on traffic, Maintenance and Protection of Traffic Plans (MPTs) will be developed and implemented. At all times, at least one moving travel lane will be maintained on each affected street. On streets where lane closures will be necessary, on-street parking will be prohibited and parking regulations will be changed to "No Standing Anytime" to ensure continued vehicular flow. Access to loading areas and driveways will be maintained during construction.

In Queens, disruption of traffic will be minimized at Northern Boulevard by limiting construction activities to nighttime hours when practical, and covering excavated areas to maintain traffic flow at street level while underpinning is under way. Similarly, any lane closures associated with work on the Sunnyside station will occur only during off-peak hours, during weekends, or at night. To the maximum extent possible, the existing rail infrastructure will be used to transport materials to and from the various construction sites. In the event that rail is not used to transport the Manhattan and Queens tunnel spoil from the stockpile site in Yard A, as well as for the delivery of construction material, a Maintenance and Protection of Traffic Plan (MPT) will be developed and implemented for Northern Boulevard between 42nd Place and 41st Avenue. Measures to minimize the effects of construction traffic will include standard temporary traffic engineering solutions such as on-street parking limitations, lane re-stripings, dedicated turn lanes, and traffic control personnel.

Detailed construction staging plans will be developed and implemented to minimize disruptions to LIRR, Metro-North, NYCT, Amtrak, and NJ Transit service during construction of East Side Access. LIRR and Amtrak will come to an agreement regarding all work in Sunnyside Yard. In coordination with Amtrak, Project schedules will be developed for all work that is likely to affect Amtrak operations at Sunnyside Yard. Construction will be staged so that access is available at all times to Amtrak's High-Speed Service & Inspection facility. Disruptions to New York City Transit subway service in Queens related to construction work near Northern Boulevard will be minimized to the extent possible by requiring track outages on weekday nights and weekends rather than during the workday.

Air Quality. All appropriate dust control measures—including watering of exposed areas and dust covers for trucks—will be employed to minimize the effects of construction on nearby people or buildings. The Queens MPT will be designed to minimize the vehicular congestion and associated air quality problems. To the maximum extent possible, the existing rail infrastructure will be used to transport materials to and from the various construction sites.

At the tunnel ventilation shaft in Queens where the tunnels are vented, the shaft will be equipped with air pollution control equipment at its exhaust point to minimize particulate matter.

Noise. The construction contracts will include specifications related to blasting operations, requiring the contractors to implement a program to minimize noise impacts. Modern blasting techniques—such as timed multiple charges, blast mats, etc.—will be employed to lessen the severity of blasting noise levels.

To minimize disruptions at Newcomers High School, adjacent to the construction staging and tunnel access shaft in Long Island City, Queens, MTA will work with representatives from the school to develop a plan to mitigate the construction-related noise effects. Such a plan will include sound-insulating construction fencing and the installation of double-glazed windows or air conditioning units in areas directly affected by the construction. MTA will continue to coordinate with school representatives throughout the construction period to address problems if they arise.

At the site of cut-and-cover sections in Manhattan and in Queens in the vicinity of Northern Boulevard, as well as near the Harold Interlocking work east of 43rd Street in Queens, noise from construction activities will result in disruptions at surrounding receptors. At locations where it is feasible, plywood barriers will be constructed around the excavation of cut-and-cover sections to reduce noise levels.

Vibration. With respect to mitigation of vibration during construction, the following controls will be implemented:

- A pre-construction survey of any structure likely to be affected by the construction activities will be performed and threshold or limiting values of each structure's ability to withstand the loads and displacements due to construction vibrations will be established. Detailed construction specifications that impose reasonable acceptance criteria will be included in construction contracts.
- Site-specific vibration control plans will be developed by the contractor and best management practices to limit vibration will be employed, including the following:
 1. Use of deep saw-cuts to minimize the transmission of vibrations from pavement-breaking operations to foundations of nearby structures.
 2. Use of concrete cutters on pavement surfaces instead of pavement breakers, where practical.
 3. Use of vibratory rather than impact pile drivers where feasible for installation of retaining walls and other structural elements.
 4. Routing of truck traffic and heavy equipment to avoid impacts to sensitive receptors.
 5. Conducting vibration monitoring during highly disruptive construction activities, such as pile driving and drilling, particularly if situated within 150 feet of a sensitive receptor.
 6. Properly securing street decking over cut-and-cover excavations.
 7. Scheduling of work to limit nighttime impacts in residential areas.
 8. Heightened attention and controls when working in historic districts and near historic structures.
 9. Minimizing the duration of vibration impacts.
- Vibration levels will be monitored by the contractor in the foundations of nearby buildings during all blasting activities. U.S. Bureau of Mines Standards for maximum air blast, New York State Department of Transportation standard specifications, and, in Sunnyside Yard, Amtrak specifications for blasting will be followed.

- Special measures set forth by the New York City Landmarks Preservation Commission and the New York City Buildings Department will be considered to protect historic resources from increased vibration levels associated with construction activities. Contractors working within 150 feet of historic structures or residences will be required to establish and monitor construction methods to limit vibration to levels that will not cause structural damage, as determined by the pre-construction survey.
- A Project-wide vibration-monitoring program will be developed and implemented to minimize vibration levels from blasting, TBM operations, and general construction activities at nearby sensitive receptors. A complaint response procedure will be used to address community concerns promptly and implement additional control methods where necessary.

Natural Resources. A Storm water Pollution Prevention Plan and an Erosion Control Plan will be developed to comply with the permitting requirements of the NYSDEC State Pollutant Discharge Elimination System (SPDES) permits. Contract specifications will require that best management practices be employed to minimize soil erosion and other effects of storm water runoff. These include the use of silt fences, straw bales, vegetative covers, etc. At all construction sites, a rodent control program will be employed. The Project will demonstrate that work performed in floodplains (Highbridge Yard, Blissville Yard and portions of Arch Street Yard, Yard A and Sunnyside Yard) meets NYSDEC criteria (NYCRR Part 502).

Throughout the Project area, regular settlement monitoring of overlying properties and streets will be performed to ensure that construction impacts remain within permitted ranges. Threshold (trigger) limits will be established for any settlements recorded, so that mitigation measures can be instituted ahead of any potential damage. Similarly, settlement and groundwater levels at Sunnyside Yard will be monitored throughout construction. Corrective measures will be maintained on standby for immediate implementation if specified levels are being approached or exceeded.

Utilities. Prior to construction of the Project, detailed investigation and engineering design will determine all of the utilities that could be affected by Project construction. A detailed field survey will be conducted and a utility relocation report prepared. Utilities located in areas of construction will be protected and maintained during construction or relocated temporarily or permanently (in the case of some sewers), without interruption in service, if maintenance is not feasible.

Safety and Security. Standard safety and security measures will be followed and the most stringent provisions of the applicable statutes and regulations of New York City and New York State, and the Department of Labor, Occupational Safety and Health Administration, pertaining to the safe performance of the work, will be observed. In the few instances where contractors will obstruct sidewalk pedestrian areas in the performance of their work, protective sidewalk sheds, barricades, warning signs, and other items to protect the public will be provided. All sites will be secured during construction to prevent trespass, theft, and vandalism. A Project-wide environmental health and safety plan will be developed for the Project to delineate Project-wide policies and requirements for railroad safety, construction safety, environmental safety and industrial hygiene. Construction contractors will be required to develop and implement site-specific Health and Safety Plans.



U.S. Department
of Transportation
Federal Transit
Administration

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May 18, 2001

Mr. George Haikalis
Transportation Consultant
One Washington Square Village, Apt. 5D
New York, NY 10012

Re: East Side Access Project Final Environmental Impact Statement (FEIS)

Dear Mr. Haikalis:

The Federal Transit Administration, Region II (FTA) is in receipt of your correspondence dated April 10, 2001 concerning the referenced project. This letter responds to the comments raised.

Comment: The Committee for Better Transit (CBT) plan reduces construction cost from \$3.3 billion to \$865 million and cuts implementation by 50 percent. The CBT plan calls for bringing LIRR trains to the exiting upper level of Grand Central Terminal (GCT), easing passenger access to the street by using ramps instead of long escalators. Use of the upper level allows lower level trackage to be extended south to Penn Station in the longer term. A careful evaluation of the CBT plan is not contained in the project's FEIS. Before FTA issues a Record of Decision, CBT requests that a targeted analysis of four key issues, described in CBT's comments on the FEIS and the MIS, be undertaken:

1. Capacity analysis using computer simulation to compare 5-track loop vs. 8-track stub
2. Instrumented tests to determine upper level loop speed
3. Independent verification of cost and implementation time of CBT's "streamlined" alternative
4. Benefit/cost analysis of midday car storage at Sunnyside Yard.

Response: As noted in the comment, CBT submitted similar comments on the Draft Environmental Impact Statement (DEIS). Responses to those comments are provided in Chapter 28 of the FEIS ("Comments and Responses") – see the responses to Comments 23 through 28 on pages 28-12 through 28-16. As noted in the FEIS (see the response to Comment 23), the CBT's plan was evaluated along with a number of other alternatives in the MIS phase of the East Side Access Project and again during the development of the DEIS. That evaluation concluded that the CBT plan (referred to in the comments and responses as the "Apple Corridor plan") does not meet the East Side Access Project's goals and objectives. The Apple Corridor plan is not capable of sustaining as high a level of service as East Side Access, and cannot meet the service requirements of its proposed ridership forecast. It would also remove five active Metro-North Railroad (MNR) tracks and three platforms from MNR service, restricting MNR's operations while cutting off MNR access to the upper-level loop track. This is not compatible with Metro-North Railroad's projected future level of services.

Mr. George Haikalis
Page 2 of 3
May 18, 2001

The response to Comment 23 also notes that the estimated cost for the Apple Corridor plan is missing key components required to make it feasible. Key elements include the underpinning of buildings of Metro-North tunnels (as in Option 1 of the Preferred Alternative), changes to platforms at GCT, additional cross passages and exits at GCT, new LIRR vehicles, midday train storage yards, adequate connections at Harold Interlocking, as well as real estate easements and acquisitions. The plan also underestimates the costs of systems and of finishes in GCT. Inclusion of these elements and adequate rolling stock would make the cost of the Harold to GCT segment of Apple Corridor comparable to East Side Access. Thus, the proposed cost savings would be reduced.

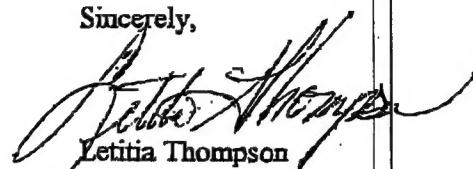
Specific responses to the four points made in the letter of April 10 are as follows:

1. *Capacity analysis using computer simulation to compare 5-track loop vs. 8-track stub.* Extensive simulations were done during both the MIS and DEIS phases of the project. All showed that 10 tracks were needed to support a loop track configuration, while 8 tracks would be sufficient with a grade-separated, stub-ended terminal. As noted in the response to Comment 24, the CBT plan proposes to remove five active Metro-North tracks and three platforms from MNR service, restricting MNR's operations and cutting off MNR access to the upper-level loop track.
2. *Instrumented tests to determine upper level loop speed.* Use of the upper level loop track assumes that LIRR trains would displace MNR trains in the upper level, as well as on the viaduct and tracks leading to the upper level. As noted above, this concept is not compatible with future MNR levels of service. The analysis of current and future Metro-North service shows that all upper level capacity, including not only the upper level of Grand Central, but also the viaduct and tracks leading to the upper level, is needed for future MNR growth.
3. *Independent verification of cost and implementation time of CBT's "streamlined" alternative.* As noted above, CBT's proposal omits critical pieces of infrastructure and underestimates the costs of other elements to achieve its estimate.
4. *Benefit/cost analysis of midday car storage at Sunnyside Yard.* Space for midday storage and servicing of East Side Access train cars must be provided at some location. Without midday storage, there can be no East Side Access service at all. If no new yard is created at Sunnyside, then additional MNR tracks at Grand Central must be taken over for East Side Access. This issue is addressed in response to Comment 26 in the FEIS, which notes that the LIRR Main Line to Jamaica consists of four tracks, which are currently operated with three tracks in the peak direction and one track in the reverse peak direction. With East Side Access, the peak service at Grand Central Terminal and Penn Station would utilize the entire capacity of the three peak-direction tracks, and the single reverse peak track would be able to sustain only about one-third as many trains as the three tracks. The balance of two-thirds of the trains must be provided with midday storage somewhere west of Harold Interlocking (i.e., Sunnyside Yards). Given that the LIRR's West Side Yard at Penn Station is already fully utilized, the requirement for East Side Access midday storage is absolute, barring an increase in the number of Main Line tracks, which has never been contemplated. The costs of such a proposal are inestimable. For these reasons, East Side Access must construct a midday storage yard in Queens, as well as dedicated leads from the 63rd Street Tunnel to that yard (requiring more than two tracks connecting the tunnel to the LIRR mainline).

Mr. George Haikalis
Page 3 of 3
May 18, 2001

We thank you for taking the time to provide us with thoughtful comments to the FEIS and hope that our responses adequately address your concerns. We look forward to receiving the CBT's input in future projects.

Sincerely,



Letitia Thompson
Regional Administrator
Federal Transit Administration

cc: Anthony F. Japha, MTA Chief Program Executive - ESA
Irwin Kessman, FTA Director of Planning
Donald Burns, FTA Community Planner
File



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May 21, 2001

**Mr. Robert W. Hargrove
Chief
Environmental Protection Agency
Strategic Planning
250 Broadway
New York, New York 10007**

Re: Long Island Rail Road (LIRR) East Side Access

Dear Mr. Hargrove:

The Federal Transit Administration, Region II office is in receipt of the Environmental Protection Agency's (EPA) correspondence dated May 16, 2001 concerning the final environmental impact statement (FEIS) for the referenced project. We appreciate your effort to bring closure to the process by stating that the FEIS has adequately addressed your concerns.

We look forward to working with EPA in future transit projects and would be happy to meet with you to discuss any of the issues you have raised.

Sincerely,

A handwritten signature in black ink, appearing to read "Letitia Thompson".

**Letitia Thompson
Regional Administrator**

**C. Anthony Japha, LIRR East Side Access
Irwin Kessman, FTA
File**